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Citation for published version:

Wilson, M, Baden, D & Wilkinson, S 2020, 'Towards Ecological Public Health? Cuba's Moral Economy of Food and Agriculture', *Third World Quarterly*, vol. 41, no. 11, pp. 1793-1808 .
<https://doi.org/10.1080/01436597.2020.1787825>

Digital Object Identifier (DOI):

[10.1080/01436597.2020.1787825](https://doi.org/10.1080/01436597.2020.1787825)

Link:

[Link to publication record in Edinburgh Research Explorer](#)

Document Version:

Peer reviewed version

Published In:

Third World Quarterly

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Third World Quarterly



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Journal:	<i>Third World Quarterly</i>
Manuscript ID	CTWQ-2019-0263.R2
Manuscript Type:	Article
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Towards Ecological Public Health? Cuba’s Moral Economy of Food and Agriculture

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Denise Baden is an Associate Professor within Southampton Business School at the University of Southampton. Her first degree was in Politics with Economics. Her background prior to academia is varied: she spent several years in industry, both employed and running her own business, was involved in script writing, films and sales and then returned to academia to do a doctorate in psychology, which was awarded in 2002. Denise worked in the area of social psychology for three years, and then joined the Southampton Business School in 2005, where she has been engaged in research and teaching in the areas of ethics, entrepreneurship, sustainable business and corporate social responsibility.

Stephen Wilkinson is Lecturer in Politics and International Relations at the University of Buckingham and Chairperson of the Humanities’ School Teaching and Learning Committee. He is also Chairman of the International Institute for the Study of Cuba and Editor of the International Journal of Cuban Studies. His PhD on the subject of Cuban detective fiction was published as *Detective Fiction in Cuban Society and Culture* in 2006 by Peter Lang. Stephen is currently researching a book on the origins of Cuban nationalism. As well as this article he currently has two articles out for review on the Cuban economy and the question of leadership in Cuba, written in collaboration with colleagues at the University of Southampton and Solent University. A chapter co-written with Denise Baden on ‘Corporate Social Responsibility in Cuba’ is to be published in the forthcoming *Current Global Practices of Corporate Social Responsibility*, Samuel O. Idowu (ed.) Springer International.

Abstract:

The concept of moral economy can be applied to all types of economy as they all involve conceptions of the ‘common good’ that determine who gets what, why and how, and who is responsible for this distribution, e.g. state or private actors. In this paper, we use the concept of moral economy to demonstrate how particular morals and logics shape public health governance in Cuba, comparing these with market liberal contexts. The paper draws from ethnographic and interview data from Cuba to evaluate the benefits and drawbacks of Cuban agri-food governance, against the backdrop of market liberal approaches. While Cuban interviewees justified their activities in terms of Cuba’s moral economy of collective need, there were also instances when the socialist moral economy conflicted with individual needs and aspirations. We conclude that, despite its faults, Cuba’s holistic approach to food and agriculture illustrates how ecological approaches to public health might work in practice.

Key words:

Cuba, moral economy, ecological public health, agri-food governance

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Introduction

Studies in ecological public health interrogate fundamental moral and political values that underlie public health governance: ‘At the heart of the contemporary debates about food and health, as in the past, is a strand of concern about agency. Who should act: the state, individuals, commercial interests or social movements? In the name of which moral and political principles?’¹ This paper uses a moral economy approach to answer these questions for both market liberal and Cuban socialist contexts. The conceptual framework of moral economy helps us to disclose the ‘implicit, collectively shared understanding[s]’² that shape how and why agricultural and public health goods are developed, distributed and marketed, and by and for whom.

A moral economy approach to agri-food and public health governance

Moral economies are ‘implicit, collectively shared understanding[s] of what constitutes a fair and desirable distribution of societal benefits and burdens.’³ The concept of moral economy is usually applied to traditional economies threatened by ‘outside’ market interference.⁴ Yet the term can be applied to market liberal economies too, since all economies involve conceptions of the ‘common good’ that designate who gets what, why and how, and who is morally responsible for this distribution, e.g. states or individuals. Rather than opposing morality to markets, then, this paper draws from broader approaches to moral economy, which show how moral attributions of value, distribution and responsibility can develop in market liberal as well as communitarian contexts.⁵ This broader approach to moral economy enables us to identify normative assumptions underlying the institutions that deliver agricultural and public health goods and services in both market liberal and Cuban socialist contexts.

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3 The two public health contexts considered here afford an interesting comparison
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5 because of Cuba's unique relationship to globalising markets. Since the collapse of the Soviet
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7 Bloc in 1991, Cuba has wrestled with reforming its centrally planned economy while
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9 suffering a collapse in GDP and loss of its main trading partners. These conditions have
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11 prompted innovative strategies to maximise food security through import substitution.
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13 Resisting wholesale restructuring prescribed by the Washington Consensus model, Cuba has
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15 endeavoured to retain a collective approach to food and other social policies while at the
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17 same time restricting private enterprise. Its market socialist reform process has been akin to,
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19 but not the same as, reform processes under way in China and Vietnam.⁶ By elaborating on
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21 Cuba's unique, if contested, approach to food and agriculture, we seek to uncover
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23 fundamental moral and political differences that shape why and how agricultural and public
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25 health products are developed, distributed and marketed, and by whom, in Cuba, comparing
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27 this with market liberal contexts.
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33 Like moral economy research, ecological public health is concerned with how
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35 resources are allocated.⁷ Ecological public health researchers focus attention on the social and
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37 ecological limitations of market-centred approaches to public health, broadening awareness
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39 of social, cultural, political, ecological and moral factors influencing public health
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41 governance.⁸ Similarly, we seek to explain how particular forms of agri-food governance are
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43 legitimated, enforced and sustained through particular moral economic 'storylines'⁹ and
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45 implications for public (and planetary) health outcomes.
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49 In the first two parts of the paper, we are concerned with the organisational
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51 governance of market liberal and Cuban socialist agri-food sectors, revealing underlying or
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53 implicit understandings of 'good' public health in each context. The concept of moral
54
55 economy helps us to determine *who* is entitled to public health assets, *how* such assets are
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57 developed and disseminated and through *what* morals and logics in these different political
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economic settings. The third part of the paper draws from empirical data from Cuba to compare and contrast market liberal and Cuban approaches to agri-food governance. Here we show how the moral economy of Cuban socialism, in its present guise, is reproduced through everyday practices,ⁱ citing data from a series of semi-structured interviews and long-term ethnographic research.

Our overall aim is to critically *evaluate* each approach to agri-food and public health governance. We do so by drawing from our own *values* in the description and analysis of each section. Our openly-normative approach counters a persistent tendency in the social sciences that separates the normative from the positive, or ‘their’ values from ‘our’ facts.¹⁰ Instead, we recognise the importance of addressing what we, as researchers, mean by ‘good’ public health, and use the concept of ecological public health to do so.

Methods

Formal, semi-structured interviews were conducted over two research trips to Cuba in April 2013 and October and November 2014. Authors 2 and 3 undertook thirty-two interviews with officials in the Ministry of Health, scientists involved in the pharmaceutical industry, academics in the Business School at Havana University, various independent entrepreneurs and with a number of Cuban urban organic farmers. These actors were selected to provide the broadest range of state and non-state voices possible within the time constraints of the project. The interviews formed part of a larger investigation into Corporate Social Responsibility (CSR) that entailed meeting participants in a variety of Cuba’s new entrepreneurial sectors, including those active in small farming and market gardening as well as the state health sector that augments Cuba’s export earnings through the manufacture and

ⁱ Comparable work on market liberal economies shows how morals and logics of the market are reproduced by ‘ordinary’ people in their everyday lives (see Parry and Bloch 1989; Gregory 1997; Carrier and Miller 1998; Gudeman 2008).

marketing of medical and biotechnological products. By actively seeking additional opportunities to talk to ordinary Cubans, Authors 2 and 3 were able to check for correlations or inconsistencies between the perspectives of high-level personnel and the everyday experiences of Cuban people. Author 1's ethnographic research on Cuba's agri-food economy also captured some of the ways official policies and norms resurface (or do not) as 'lay moralities'¹¹ and practices in everyday life. Author 1 conducted ethnographic research for a total of eighteen months in 2005-2007 and during the summers of 2011, 2014 and 2017. Through return ethnography conducted in the same place over a twelve-year period, Author 1 was able to ascertain changes to the normative repertoire guiding 'appropriate' ways of provisioning food and agricultural products in Cuba.

To preserve anonymity, opinions and viewpoints have not been attributed to particular institutions and the name of the location where ethnographic fieldwork was conducted is omitted. When necessary, pseudonyms are used.

I. The Moral Economy of Big Food

Since the 1980s the advanced capitalist liberal democracies have shared a (neo)liberal paradigm, according to which the 'free' market is seen as the best means to harness human agency and the end towards which all (or most) human endeavours should be employed.¹² This perspective shapes economic decision-making among powerful political, economic and financial actors, e.g., what to make, how to distribute the products, whom to target as consumers and so on. Proponents justify this approach in terms of particular moral economic 'storylines',¹³ in which freeing up markets will lead to: technological innovation and wealth creation;¹⁴ economic efficiency;¹⁵ and collective benefits through the pursuit of self-interest.¹⁶

In agri-food sectors, these moral economic storylines serve to promote export-driven, high-input agriculture (technological innovation, wealth creation), a preference for

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monocultures over crop diversity (economic (rather than ecological) efficiency)¹⁷ and consumer-driven economies that favour ‘freedom’ of choice (collective benefits through self-interest). In the moral economy of Big Food, large industrial food producers and manufacturers dominate the production and sale of packaged food and drink, and industrial-scale agricultural companies provide raw materials to the food industry with a monopoly-like hold on the seed and grain industries. In this moral economy, the ‘common good’ is met by a collection of individuals who have the moral responsibility to engage in market exchange:

The conception of the individual required by [market liberal] economists to make their argument imposes constraints on the social actor that make him a moral being. ... [M]oral capacity is presupposed in the construction of an order of market exchanges among persons, who must be capable of distancing themselves from their own particularities in order to reach agreement about external goods.¹⁸

In other words, individual buyers and sellers must prioritise market transactions over everything else, agreeing to produce, market and consume ‘external goods’ that may compromise theirs or others’ concerns about health, social justice and/or environmental sustainability. This moral economy perpetuates research, development and sale of products high in fat, salt and sugar manufactured from the same handful of mass-produced agricultural commodities: soya and soybean oil, palm oil, corn and corn oil, etc. Big Food also conducts R&D into ‘sustainable’ and ‘ethical’ foods (or ‘healthy’ or ‘diet’ foods¹⁹) that target wealthier consumers.ⁱⁱ The divergence of mass and niche markets for food products is creating a global food divide²⁰ between the healthy wealthy and the junk-eating poor and a geographical divide between areas designated as supply zones for industrially-produced food, often in the global

ⁱⁱ This so-called ‘green capitalism’ (Friedmann 2005; Tienhaara 2014) is made possible through a ‘corporate capture’ (see below) of environmental and health messages of the hippy movement of the 1960s (Belasco 2006).

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3 South, and areas where more sustainable kinds of production are funded, developed and
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5 marketed, often in the global North.
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8 Critical public health research into the marketing and development strategies of Big
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10 Food include accounts of the food industry's undue influence over public health research and
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12 policy,²¹ its use of advertisements targeting children²² and marketing strategies directed at
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14 poorer populations, especially those in low and middle-income countries.²³ The social and
15
16 political acceptability of such approaches has increased over the last four decades, reflecting
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18 broader social and moral changes in ideas of who is responsible for public health.²⁴
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20 Increasingly, this responsibility lies with 'ensembles' of state-market governance²⁵ that lead
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22 to tensions between public and private interests. Public regulatory bodies that fall under the
23
24 United Nations umbrella (e.g. the Food and Agriculture Organization, the World Health
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26 Organization, the World Food Programme, the United Nations Environment Program) are
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28 now aligned with financial institutions established in 1944-1945 as part of the Bretton Woods
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30 agreement, such as the World Bank and the International Monetary Fund. This has led to
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32 what has been termed the 'embedding of neoliberalism' within the ideological approaches of
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34 these institutions.²⁶ Inevitable paradoxes arise because, while the United Nations institutions
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36 were established to promote universal food security and public health, the Bretton Woods
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38 organisations are closely allied with corporate interests.²⁷
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45 It is clear that corporate interests prevail when there are disputes between such public
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47 and private actors. For instance, the WHO and FAO's 2003 report, *Diet, Nutrition and the*
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49 *Prevention of Chronic Diseases*, recommended a 10% limit on all added sugars, but retracted
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51 this advice after the US sugar industry threatened to cut off their annual funding if they did
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53 not keep the original 30% limit.²⁸ Furthermore, under pressure from United States and
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55 European sugar industries, in 2006 the UN's International Codex Alimentarius Commission,
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57 which sets international food safety standards, decided not to lower the amount of sugar in
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baby food to 10%, which was recommended by nutritionists. The Commission’s recommendation for sugar in baby food stayed at 30%.²⁹ More recently, the words ‘red meat’ and ‘sugar-sweetened beverages’ were taken out of the US Dietary Guidelines, after intense lobbying from the US meat and sugar industries.³⁰

Along with potential risks to human health, the frequency of business ethics scandals and business failures also raises questions over the desirability of this form of agri-food governance. Proposed solutions have ranged from developing alternative organisational forms such as social enterprises, to increasing the capability of CSR to address issues of unethical business practice. Yet rather than addressing the needs of vulnerable bodies or environments, business partnerships with NGOs or governments to address CSR concerns – so-called public-private partnerships (PPPs) – often lead to corporate capture. Corporate capture occurs as business language, values and interests dominate in stakeholder discussions, allowing business interests to exercise undue influence over government and activist groups, which undermines the latter’s ability to regulate and constrain business activities.³¹ These issues are particularly significant in the case of the agri-food and pharmaceutical sectors, which are entrusted with the delivery of goods and services vital to human well-being. Guillermo Foladori³² argues that PPPs fail to advance public health outcomes in a sustainable manner, due to the divergent interests of pharmaceutical companies and public health institutions. Whereas the latter’s goal is healthy people, for the industry, ill people with purchasing power present the best profit-maximizing opportunities.

When profit-seeking activities of big business are seen to be in conflict with societal and environmental welfare, the legitimacy of private enterprise as the optimum means to deliver essential products and services may be called into question.³³ As Rayner and Lang³⁴ argue, a holistic approach to public health is crucially needed, in which public health is treated as *pro bono publico* (for the public good) rather than simply for profit. In the rest of

the paper, we assess Cuba's alternative approach to food and agriculture in order to examine whether it offers lessons for instituting more ecological approaches to public health.

II. Cuba's moral economy of food and agriculture

In contrast to other developing countries where Structural Adjustment Policies of the 1980s and 1990s siphoned money away from the agri-food and public health sectors,³⁵ in Cuba state ministries and the Party have protected these sectors (and others) from liberalisation. In 2007, however, the Cuban government began to implement a strategy of economic reform designed to reduce the role of public institutions in the allocation of resources, and to allow for the controlled development of private enterprise with the introduction of market mechanisms to incentivise and rationalise the production and distribution of goods and services.^{iii 36}

Yet the state-market 'ensemble' of public health governance is configured differently, and for different purposes, in Cuba than in market liberal contexts. Market activity is only permitted if it supports former president Raúl Castro's project for a 'prosperous and sustainable socialism'.³⁷ Miguel Díaz-Canel, who became president of Cuba in April 2018, continues to support Raul Castro's project³⁸ and other revolutionary principles.³⁹ According to this view, 'sustainable socialism' can be understood in political as well as environmental terms. Politically, sustainable socialism means a strategy to improve the Cuban Revolution (*'perfeccionamiento'*) with ongoing revisions to the socialist project according to changing circumstances. Environmentally, sustainable socialism means the development and support of ecological practices, such as agro-ecological production, that enable the continued use of Cuba's limited resources, with decreasing dependence on outside markets to supply necessary goods and services. In both senses, sustainable socialism means a controlled use of the

ⁱⁱⁱ There have been other periods when economic rewards have replaced moral incentives. Yaffe (2009) and Kapcia (2008) both detail how the pendulum has swung at different times between an emphasis on moral (Guevarist/voluntarist) and economic (Soviet/materialist) incentives. As a result, Cuba currently presents a complex reality in which economic incentives are now once again at the forefront of incentivising production.

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market as a means of supporting Cuba’s ongoing Revolutionary ‘struggle’ (*lucha*). This struggle began well before the 1959 Revolution and is exemplified in the writings of Cuba’s nineteenth-century revolutionary hero, Jose Martí.⁴⁰ Although used selectively, Martí’s writings are tied to an anti-imperialist political culture⁴¹ underpinned by moral economic logics of social justice, sovereignty, hard work and self-sacrifice.⁴² In the first few years of Fidel Castro’s Revolution, these older values became associated with newer ‘storylines’ that emphasised collective ownership and redistribution according to need, in line with the Marxist tenet, ‘From each according to his capacity, to each according to his needs’.⁴³

Cuba’s present moral economy, which emphasises sustainable socialism and (state-defined) needs over individual benefits, underlies the organisation and governance of Cuba’s agri-food sectors. ‘Market openings in Cuba have led to the re-evaluation [but also] reinforcement of national standards of value, according to which food and the land on which it is grown are forms of collective property.’⁴⁴ Accordingly, Cuba’s agri-food sectors are organised to respond to the needs of health and social care institutions. For instance, specially formed public bodies, such as the *Acopio*, are in charge of redirecting farmers’ products (e.g. milk, yogurt and beef) from the market to hospitals, social care institutions and for special rations provided to children, pregnant women, the sick and the elderly.⁴⁵ Like agricultural production, Cuba’s research and production facilities are closely integrated with other key social institutions (in particular, universities and health and social service agencies), which ensures that societal needs and institutional goals are as closely aligned as possible. These inter/intra-sectoral networks enable systematic understandings of the needs of people and environments, coinciding with the holistic aims of ecological public health.

Indeed, although Cuban food production and provisioning services have been restructured to be economically self-sufficient and now operate in a more autonomous manner from public institutions, essential features of the original structure have been

retained. These include knowledge sharing and collaboration, vertical integration and full-cycle research and production, and networking and integration with other key sectors related to public health and the environment. Sustained public support for environmentally driven research into bio-pesticides and bio-fertilizers, integrated pest management and other agro-ecological practices have played a key role in developing and organising the network of individuals and institutions that make up Cuba's agri-food sectors.⁴⁶ This has meant the promotion of farmer-to-farmer knowledge exchange through media sources such as *Sol a Sol*, a national television programme that reports farmer innovations on a weekly basis; the development of patents for small farmer innovations; and strengthening support for key institutions such as the National Association of Small Farmers, agricultural cooperatives and state and non-state food markets.⁴⁷

The organisational structure of Cuba's agri-food sectors allows for innovative, cross-disciplinary learning and problem solving.⁴⁸ More controversial is the designation of which public health needs should be prioritised and who is responsible for allocating these needs (e.g. state or market institutions). State officials:

are instilled with the authority to determine ... distributive justice, and their idea of justice justifies distributing more social property to Party members and to those officially defined as advancing the aims of the Revolution [or those seen as 'needy']. Recent [market liberalizations in Cuba] must be viewed in light of this idea of justice, which separates the 'worthy' who contribute to the Revolution from the 'parasites' who use its social property for their own benefit.⁴⁹

As Author 1 found during her fieldwork, Cuba's moral economy of need is underpinned by a political hierarchy that designates who has the authority to define collective needs and those worthy of receiving them. Members of Cuba's agri-food and public health sectors may incorporate the morals and logics of Cuban socialism into their ideas and practices;⁵⁰ yet, as

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illustrated below, there were also instances during Author 1’s ethnographic fieldwork when personal interests clashed with collective agendas.

III. Lay moralities and contestation

Both lay moralities and contested notions of the ‘common good’ are illustrated in this final section with ethnographic examples.

Authors 2 and 3 interviewed a number of food producers, ranging from families with rooftop gardens to members of agricultural cooperatives. Interviewees explained how a market-led approach is used to incentivise production, and how state institutions are reducing their role in central planning in favour of decentralised approaches that encourage local grassroots initiative. Yet the core values of solidarity and collective needs were still apparent, as evidenced in this quote from a cooperative member:

We feel that our contribution to the health and well-being of the community lies in providing healthy food at prices that people can afford. Here we feed more than five hundred people in our locality. ... We have also recovered an area that was left derelict and made it productive again.

Interviewed businesses – whether state owned, privately owned, or mixed – also saw themselves as answerable to the Cuban population (or in the case of smaller businesses, their local communities).⁵¹ Since it was taken for granted that the purpose of business is to serve society’s interests, the question of profit over ethics was not even considered by any of the interviewees. In contrast to the CSR discourse in market liberal contexts, debates about social responsibility in Cuba tended to occur when there were zero-sum trade-offs between different social goods – for example, between job creation and protection of the environment – rather than between profit-maximisation and social responsibility. A rooftop gardener explained

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3 how she keeps some food for her family but distributes the rest to her community on a non-
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5 profit basis. And in an interview with owners of a large cooperative producing organic
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7 produce for the whole province, Authors 2 and 3 were told that the price of their produce was
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9 capped by the state authority (the Acopio), to prevent exploitation. The co-operative members
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11 set a price even lower than the maximum allowed:
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15 This project has a social objective. But it is important to have a profit. Even
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17 though our products are organic, we sell them cheaper than the state markets
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19 do ... We are producing for our own families because we all live in this area.
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21 We ... have per capita incomes that are often two and a half times that of the
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23 average agricultural worker ..., so it is no sacrifice for us to set a lower price
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25 than we need to.
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29 The ideology here is sufficiency of profit as opposed to maximisation of profit; economic
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31 interests do not override the needs of the community.
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34 Moreover, owners of organic gardens were well aware of the environmental benefits
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36 of their approach: 'One hectare of these gardens is capable of capturing and fixing between
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38 five and six tons of carbon dioxide every year. Over the whole area they fix 350,000 tons of
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40 Co2 each year'. Farmers were also keen to point out the economic advantages of agro-
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42 ecological methods such as the use of plants to repel pests rather than chemicals:
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45 It is a myth that organic production is more expensive. ... In order to produce
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47 organically you need to produce your own fertilizer. This is not a disadvantage
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49 because it is cheaper to produce organic fertilizer than chemical fertilizer. It is a
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51 hidden cost that does not appear in the price.
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54 These quotes illustrate that the metrics of success for Cuban food producers remain social
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56 goals such as health, food security, sustainability and self-sufficiency at both the community
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58 and national levels. Market mechanisms are included to incentivise the production of crops
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that meet current food needs, or to address any current or anticipated shortfalls or nutritional deficiencies. The notion of solidarity – essential to the self-image of the Cuban Revolution⁵² – was apparent in almost all conversations with Cubans. Such displays of community action and self-sufficiency are consistent with high levels of self and ‘collective efficacy’ as discussed by Bandura (1994) and Zaccaro et al (1995).⁵³

Cuba’s achievement of strong public health outcomes in a context of limited resources has previously been explained as an effect of its position on ‘the margins of globalization’, which enabled it to set priorities independent of the influence of institutions that imposed Structural Adjustment policies on many countries.⁵⁴ More recently, Cuba has been ranked first in the 2020 ranking of countries in the Sustainable Development Index (SDI). The SDI measures ‘the ecological efficiency of human development, recognizing that development must be achieved within planetary boundaries.’⁵⁵

Despite such external commendations, Author 1’s research uncovers conflict with official norms and government priorities for agri-food governance. For instance, determinations of collective need sometimes jarred with individual preferences. In one ethnographic instance, farmers complained about state allocations of tomato seeds, which prioritized productive output and ecological efficiency over taste: ‘People do not buy [these] green tomatoes! [The state] produce[s] them to avoid plagues, but no one eats [them]! ... In the black market, I can buy foreign seeds that produce large, red tomatoes. Consumers want this kind of tomato!’

Similarly, Author 1 found that state hegemonies emphasizing quantity over quality and public health nutrition over cultural preferences sometimes conflicted with local food cultures. While state-led food redistribution was a welcome extra source of calories and sustenance for sick or otherwise vulnerable people, Cubans often complained about dietary substitutes. One vivid example were so-called ‘*objetos comestibles no identificados* (non-

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3 identifiable edible objects)', such as soya mince, a protein-rich product used to replace more
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5 expensive meat products. This product was detested universally, although it was consumed
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7 by those recognised as protein-needy. This is not surprising, given the cultural value of meat
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9 consumption in Latin American countries such as Cuba.⁵⁶
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12 Although Author 1 was primarily interested in agri-food norms and practices, it was
13
14 impossible to avoid the topic of health and medicine as this was encountered on a daily basis.
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16 As with agri-food sectors, it was clear that state support for medical research did not always
17
18 conform to individual needs. The most memorable example were the endless requests for
19
20 Author 1 fill her luggage with basic medicines such as ibuprofen, acetaminophen and
21
22 laxatives, which, as anyone who has visited Cuba knows, are very hard to come by on the
23
24 island in circumstances of the active trade embargo enforced by the United States. Public
25
26 support in Cuba for medical treatments for cancer and other major illnesses may be
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28 commendable,⁵⁷ but ethnographic research indicates that there was still a need for over-the-
29
30 counter drugs that western consumers can buy inexpensively in any pharmacy. As Rayner
31
32 and Lang⁵⁸ warn, the counter to market liberal approaches to public health may be 'draconian
33
34 policies' to control populations and bodies in ways that favour some populations over others.
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36 In this case, Cubans with major illnesses such as cancer were favoured over Cubans with
37
38 everyday ailments such as constipation.
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44 As Cuba seeks to grow its export markets, in the context of its need to overcome post-
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46 Soviet isolation and the effects of US policy upon its economy,⁵⁹ it will necessarily be
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48 operating within a global market liberal economy. Cuba's precarious position 'on the margins
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50 of globalisation' will give rise to moral economic questions about who is responsible for
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52 public health and whose needs should be prioritized. As Augustín Lage, Director of Center of
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54 Molecular Immunology, has written: 'There is an inherent complexity to maintaining...
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56 external market relationships alongside internal socialist distribution relationships'.⁶⁰ Yet,
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despite the need to seek out foreign partnerships and access the global market, it seems unlikely that the recent reorganisation of Cuba’s agri-food sectors will threaten the government’s commitment to meeting collective needs, even if the definition of ‘needs’ continues to be defined from above.

Conclusion

Moral economy research can increase understandings of economic behaviours and logics in a range of political economic contexts.⁶¹ This is important because it helps explain why and how particular forms of economic organisation continue to persist, even if unfavourable for people and the planet. In this paper, we have used the concept of moral economy to demonstrate how particular morals and logics shape agri-food and public health governance in Cuba, comparing these with market liberal contexts.

The role of the socialist moral economy in shaping the strategic goals, organisation and outputs of the Cuban agri-food sectors may not be easy to replicate in other places. Nonetheless, Cuba’s public health successes do present many learning opportunities. Among other things, they highlight the crucial role of morality and culture in shaping public health research priorities, cross-sectoral organisation and interventions at the local level. Just as market liberal economies present values such as competitive innovation and self-interest as acceptable and even admirable, Cuba’s socialist moral economy relies upon an internalisation of values such as solidarity and ‘just’ redistribution.

Critical insights from the ethnographic research also illustrate that, just as in market liberal contexts, the uneven ranking of some values over others can cause tensions and dilemmas. Interviewed farmers did not always agree with the government’s emphasis on output and nutritional health over consumer preferences. Moreover, state prioritisation of medicines for major illnesses such as cancer meant that most Cubans could not access drugs

that western consumers take for granted, such as ibuprofen, unless these were brought from friends and family from abroad.

Despite its shortcomings, Cuba's moral economy of food and agriculture reflects the government's ongoing commitment to a holistic approach to research and innovation, based on market considerations as well as social and ecological justice. The contribution of this paper has been to provide empirical data from Cuba to illustrate the importance of studying how and why food and agricultural products are developed, distributed and marketed in different political economic contexts. In evaluating each context, we have not shied away from our own norms as researchers. Evaluating and learning from Cuba's approach to sustainability is especially important in the context of concerns about climate change and a looming climate emergency.⁶² As we understand more about how over-consumption threatens the ecosystems we depend upon, we need to reconsider the trade-offs between individual choice and collective well-being.⁶³ We hope this paper informs these debates by identifying successes and failures of a society that has made different trade-offs with different outcomes. We also hope to have initiated a dialogue about the ways different moral economies of public health enable or disable human and environmental flourishing, a discussion that is crucial for developing more ecological approaches to public health. Indeed, from our perspective, Cuba's approach to agri-food offers important insights into how ecological public health might work in practice.

Declaration of interest statement:

No financial interest or benefit has arisen from the direct applications of research conducted for this paper.

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References

Albritton, R. “Between Obesity and Hunger: The Capitalist Food Industry.” In *Food and Culture: A Reader*, edited by C. Counihan and P. Van Esterik, 342-352. New York: Routledge, 2013.

Altieri, M. A., Nicholls, C.I., Pérez, N. & Vasquez, L. “The Development and Status of Biologically Based Integrated Pest Management in Cuba.” *Integrated Pest Management Reviews* 7(1) (2002): 1-16.

Altieri, M. A., Nicholls, C. I. & Montalba, R. “Technological Approaches to Sustainable Agriculture at a Crossroads: An Agroecological Perspective”. *Sustainability* 9(349) (2017): 1-13.

Baden, D. and Wilkinson, S. “Socially Responsible Enterprise in Cuba: a Positive Role Model for Corporate Social Responsibility?” *International Journal of Cuban Studies* 6(1) (2014): 55-86.

Baden, D., Davis C., and Wilkinson, S. “Ethics in Pharma: A Case Study from Cuba.” Paper presented at the annual British Academy of Management Conference: The Value of Pluralism in Advancing Management Research, Education and Practice, Plymouth, UK, 2015.

Baden, D., Davis C., and Wilkinson, S. “A Tale of Two Pharmas: Medicines, Ethics and Entrepreneurship in Cuba and the West.” Paper presented at the XXXIV International Congress of the Latin American Studies Association, New York, 2016.

Bandura, A. (1994). Self-efficacy. In V. S. Ramachaudran (Ed.), *Encyclopedia of human behavior* (Vol. 4, pp. 71-81). New York: Academic Press. (Reprinted in H. Friedman [Ed.], *Encyclopedia of mental health*. San Diego: Academic Press, 1998)

Batalla, S. P. and Grzelczyk, V. "A Future, But at What Cost? Cuba and the Democratic People's Republic of Korea's Quest for Sustainable Development". *Third World Quarterly* (2019) DOI: [10.1080/01436597.2018.1539909](https://doi.org/10.1080/01436597.2018.1539909)

Boltanski, L. and Thévenot, L. *On Justification: Economies of Worth*. Translated by Catherine Porter. Princeton and Oxford: Princeton University Press, 2006.

Belasco, W. *Appetite for Change: How the Counterculture Took On the Food Industry*. Ithaca, NY: Cornell University Press, 2006.

Cardenas, A. *The Cuban Biotechnology Industry: Innovation and Universal Healthcare*. Institute for Institutional and Innovation Economics, University of Bremen, November, 2009. Available at: http://www.theairnet.org/files/research/cardenas/andres-cardenas_cubab_biotech_paper_2009.pdf, Accessed 12 January 2015.

Carrier, J. & Miller, D. *Virtualism: A New Political Economy*. Oxford: Berg, 1998.

Castro Ruz, R. "Discurso pronunciado por el general de ejército Raúl Castro Ruz, Presidente de los Consejos de Estado de Ministros, en el quinto periodo ordinario de sesiones de la VII Legislatura de la Asamblea Nacional del Poder Popular. Palacio de Convenciones, el 1º de agosto de 2010, 'Año 52 de la Revolución'." 2010. Available at:

<http://www.cuba.cu/gobierno/rauldiscursos/2010/esp/r010810e.html>, accessed 22 February 2018.

Chacon, V., Letona, P., Villamore, E, & Barnoya, J. “Snack Food Advertising in Stores around Public Schools in Guatemala.” *Critical Public Health* 25 (2015): 291-298.

Domínguez López, E. & Yaffe, H. “The Deep Historical Roots of Cuban Anti-Imperialism”. *Third World Quarterly* 38(11) (2017): 2517-2535.

Duhaime-Ross, Arielle. “New US Food Guidelines Show the Power of Lobbying, Not Science”, 2016. Available at: <https://www.theverge.com/2016/1/7/10726606/2015-us-dietary-guidelines-meat-and-soda-lobbying-power> (accessed 6 June 2019).

Duncan, J. and Barling, D. (2012). ‘Renewal through Participation in Global Food Security Governance: Implementing the International Food Security and Nutrition Civil Society Mechanism to the Committee on World Food Security.’ *International Journal of the Sociology of Agriculture and Food*, 19(2), pp. 143-161.

Emtairah, T. & Mont, O. “Gaining Legitimacy in the Contemporary World: Environmental and Social Activities of Organisations.” *International Journal of Sustainable Society* 1(2) (2008): 134-148.

Finn, D. *The Moral Ecology of Markets*. Cambridge: Cambridge University Press, 2006.

Foladori, G. "Can PPPs in Health Cope with Social Needs?" In *Knowledge Flows and Knowledge Collectives: Understanding The Role of Science and Technology Policies in Development*, report of a project for the Rockefeller Global Inclusion Program, 83-98, 2003.

Available at:

<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.201.9357&rep=rep1&type=pdf>,

accessed 22 February 2018.

Friedmann, H. "From Colonialism to Green Capitalism: Social Movements and the Emergence of Food Regimes." In *New Directions in the Sociology of Global Development*, edited by F. H. Buttel and P. McMichael, 227-264. London: Emerald Group Publishing Limited, 2005.

Funes, F., Garcia, L., Bourque, M., Pérez, N. & Rosset, P. eds. *Sustainable Agriculture and Resistance: Transforming Food Production in Cuba*. Oakland, CA: Food First, 2002.

Gregory, C. *Savage Money: The Anthropology and Politics of Commodity Exchange*. London: Harwood, 1997.

Gudeman, S. *Economy's Tension: The Dialectics of Community and Market*. New York: Berghahn Books, 2008.

Guerra, L. *The Myth of José Martí: Conflicting Nationalisms in Early Twentieth-Century Cuba*. Chapel Hill, NC and London: The University of North Carolina Press, 2005.

Gürcan, E. C. "Cuban Agriculture and Food Sovereignty: Beyond Civil-Society-Centric and Globalist Paradigms". *Latin American Perspectives* 41(4) (2014): 129-146.

Guthman, J. *Weighing In: Obesity, Food Justice, and the Limits of Capitalism*. Berkeley and New York: University of California Press, 2011.

Hickel, Jason. 2020. "The Sustainable Development Index: Measuring the Ecological Efficiency of Human Development in the Anthropocene," *Ecological Economics* vol 167.

IPCC (Intergovernmental Panel on Climate Change). "Global Warming of 1.5C" Intergovernmental Panel on Climate Change, Geneva, 2018. Available at: <https://www.ipcc.ch/sr15/> (accessed 18 June 2019).

Jackson, T. "The Post-Growth Challenge: Secular Stagnation, Inequality and the Limits to Growth". *Ecological Economics*, Vol. 156 (2019): 236-246.

Jackson, P., Ward, N., Russell, P. "Moral Economies of Food and Geographies of Responsibility". *Transactions of the Institute of British Geographers* 34(1) (2009): 12-24.

Kapcia, A. 2005. "Educational Revolution and Revolutionary Morality in Cuba: the 'New Man', Youth and the New 'Battle of Ideas'". *Journal of Moral Education* 34(4): 399-412.

Kapcia, A. *Cuba in Revolution: A History Since the Fifties*. London: Reaktion Books, 2008.

Kelly, B., King L., Jamiyan B., Chimedtseren N., Bold B., Medina V.M., De los Reyes S.J., et al. "Density of Outdoor Food and Beverage Advertising around Schools in Ulaanbaatar (Mongolia) and Manila (Philippines) and Implications for Policy." *Critical Public Health* 25(3) (2015): 280-290.

Lage, A. "Socialism and the Knowledge Economy." *Monthly Review* 58(7) (2006). Available at: <https://monthlyreview.org/2006/12/01/socialism-and-the-knowledge-economy-cuban-biotechnology/>, accessed 22 February 2018.

Lang, T. "Reshaping the Food System for Ecological Public Health." *Journal of Hunger and Environmental Nutrition* 4(3-4) (2009): 315-335.

Lang, T., Millstone, E. & Marsden, T. *A Food Brexit: Time to Get Real*. City University, London, University of Sussex, Science/Policy Research Institute, Cardiff University (Sustainable Places Research Institute), 2017. Available at: <https://www.sussex.ac.uk/webteam/gateway/file.php?name=foodbrexitreport-langmillstonemarsden-july2017pdf.pdf&site=25> , accessed 22 February 2018.

Leogrande, William M. "Can Cuba's Miguel Díaz-Canel complete Raúl Castro's economic revolution?" *The Cuban Economy*. Blog by Arch Ritter, 2018. Available at: <https://thecubaneconomy.com/articles/tag/miguel-diaz-canel/> , accessed 29 May 2019.

Monteiro, C. A. & Cannon G. "The Impact of Transnational 'Big Food' Companies on the South: A View from Brazil." *PLoS Medicine* 9(7) (2012): 1-5.

Nestle, M. "Food Lobbies, the Food Pyramid, and US Nutrition Policy." *International Journal of Health Services* 23(3) (1993): 483-496.

Olwig, M. F., Noe, C. Kangalawe, R. & Luoga, E. "Inverting the Moral Economy: the Case of Land Acquisitions for Forest Plantations in Tanzania. *Third World Quarterly* 36(12) (2015): 2316-2336.

Palley, T. I. "From Keynesianism to Neoliberalism: Shifting Paradigms in Economics." In *Neoliberalism: A Critical Reader*, edited by A. Saad-Filho & D. Johnston, 20-30. London: Pluto Press, 2005.

Parry, J. & Bloch, M, eds. *Money and the Morality of Exchange*. Cambridge: Cambridge University Press, 1989.

Partido Comunista de Cuba. *Resolution on the Guidelines for the Economic and Social Policy of the Party and the Revolution*, 2011. Available at: <http://www.cuba.cu/gobierno/documentos/2011/ing/1160711i.html>, accessed 22 February 2018.

Peabody, J.W. "Economic Reform and Health Sector Policy: Lessons from Structural Adjustment Programs." *Social Science and Medicine* 43(5) (1996): 823-835.

PLoS Medicine Editors. "PLoS Medicine Series on Big Food: The Food Industry is Ripe for Scrutiny." *PLoS Medicine* 9(6) (2012): e1001246.

Rayner, G. & Lang T. *Ecological Public Health: Reshaping the Conditions for Good Health*. Abingdon and New York: Routledge/Earthscan, 2012a.

Rayner, G. & Lang T. "Ecological Public Health." In *Health of People, Places and Planet*, edited by C.D. Butler, J. Dixon, & A.G. Capon, 617-642. Canberra: Australia National University, 2012b.

Reid-Henry, S.M. *The Cuban Cure: Reason and Resistance in Global Science*. Chicago: University of Chicago Press, 2010.

Rossett, P. "Cuba: A Successful Case Study of Sustainable Agriculture." In *Environmental Sociology: From Analysis to Action*, edited by L. King & D. McCarthy, 430-438. New York, NY: Rowman and Littlefield, 2005.

Sachweh, P. "The Moral Economy of Inequality. Popular Views on Income Differentiation, Poverty and Wealth." *Socio-Economic Review* 10 (3) (2012): 419-445.

Sayer, A. *Why Things Matter to People: Social Science, Values and Ethical Life*. Cambridge: Cambridge University Press, 2011.

Scott, J. *The Moral Economy of the Peasant: Rebellion and Subsistence in Southeast Asia*. New Haven: Yale University Press, 1976.

Shutt, Cathy. "A Moral Economy? Social Interpretations of Money in Aidland." *Third World Quarterly* 3(8) (2012): 1527-1543.

Spiegel JM, Yassi A. Lessons from the margins of globalization: Appreciating the Cuban health paradox. *Journal of Public Health Policy*. 25(1):85-110. 2004

Smith, A. *An Inquiry into the Nature and Causes of the Wealth of Nations*. Oxford: Clarendon Press, 1976 [1776].

Sustainable Development Index. <https://www.sustainabledevelopmentindex.org/>
accessed 12/02/2020

Teicholz, N. "The Scientific Report Guiding the US Dietary Guidelines: Is It Scientific?" *British Medical Journal* 351:h4962 (2015).

Tienhaara, K. "Varieties of Green Capitalism: Economy and Environment in the Wake of the Global Financial Crisis." *Environmental Politics* 23(2) (2014): 187-204.

Torres, Ricardo. "Economic Transformations in Cuba: A Review." *Third World Quarterly* 37(9) (2016): 1683-1697.

Underhill, G. R. D. "States, Markets and Governance for Emerging Market Economies: Private Interests, the Public Good and the Legitimacy of the Development Process." *International Affairs* 79(4) (2003): 755–81.

Utting, P. *Business Responsibility for Sustainable Development*. Geneva: The United Nations Research Institute for Sustainable Development, 2000.

Wilkinson, S. "A Perfect Impasse? Cuba's Move Towards the Market and the US Move Towards Cuba." *Economic Affairs* 37 (1) (2017): 19-35.

Williams, S. M. & Nestle, M, eds. *Big Food: Critical Perspectives on the Global Growth of the Food and Beverage Industry*. London: Routledge, 2016.

Wilson, M. *Everyday Moral Economies: Food, Politics and Scale in Cuba*. Oxford: Wiley Blackwell, 2014a.

"Agroecology and Cuban Nationhood." In *Ethical Eating in the Postsocialist World: Ethnographic Engagements with Food and Food Movements*, edited by M. Caldwell, J. Yung, & J. Klein, 167-88. Berkeley: University of California Press, 2014b.

"Cuban Exceptionalism? A Geneology of Postcolonial Food Networks in the Caribbean." In *Postcolonialism, Indigeneity and Struggles for Food Sovereignty*, edited by Wilson, M., 146-174. London and New York: Routledge, 2017.

Wilson, M. and Jackson, P. Fairtrade Bananas in the Caribbean: Towards a Moral Economy of Recognition. *Geoforum* 70 (2016): 11-21.

Wright, J. *Sustainable Agriculture and Food Security in an Era of Oil Scarcity: Lessons from Cuba*. London: Earthscan, 2009.

Yaffe, H. *Che Guevara: The Economics of Revolution*. London: Palgrave Macmillan, 2009.

Zaccaro S.J., Blair V., Peterson C., Zazanis M. Collective Efficacy. In: Maddux J.E. (eds) Self-Efficacy, Adaptation, and Adjustment. The Plenum Series in Social/Clinical Psychology. Springer, Boston, MA, 1995

Ziegler, J. "Promotion and Protection of All Human Rights, Civil, Political, Economic, Social and Cultural Rights, Including the Right to Development." Mission to Cuba, Report of the Special Rapporteur on the Right to Food, 2008. Available at: <http://www.righttofood.org/wp-content/uploads/2012/09/AHRC75Add.3.pdf>, accessed 22 February 2018.

¹ Lang, "Reshaping the Food System", 317.

² See note 2 above.

³ Sachweh, "Moral Economy of Inequality", 420.

⁴ Scott *Moral Economy of the Peasant*.

⁵ Jackson *et al.*, "Moral Economies of Responsibility"; Wilson & Jackson, "Fairtrade Bananas in the Caribbean".

⁶ Wilkinson, "A Perfect Impasse?".

⁷ Lang, "Reshaping the Food System"; Rayner and Lang, "Ecological Public Health"; Rayner and Lang *Ecological Public Health*.

⁸ Rayner and Lang, "Ecological Public Health".

⁹ Olwig *et al.*, "Inverting the Moral Economy", 2317.

¹⁰ Sayer, *Why Things Matter*.

¹¹ Ibid., 145-146.

¹² Palley, "From Keynesianism to Neoliberalism".

¹³ See note 8 above.

¹⁴ Finn, *Moral Ecology of Markets*.

¹⁵ See note 11 above.

¹⁶ Cf. Smith, *Inquiry into the Nature*.

¹⁷ Altieri *et al.*, "Technological Approaches to Sustainable".

¹⁸ Boltanski and Thévenot, *On Justification*, 27.

¹⁹ Guthman, *Weighing In*.

²⁰ Lang *et al.*, *A Food Brexit*, 4.

²¹ PLoS Medicine editors, "PLoS Medicine Series", 1.

²² Kelly *et al.* "Density of Outdoor Food"; Chacon *et al.* "Snack Food Advertising".

²³ Williams and Nestle, *Big Food*.

²⁴ Monteiro and Cannon, "The Impact of Transnational", 1.

²⁵ Underhill, "States, Markets and Governance".

²⁶ Duncan and Barling 2012.

²⁷ Lang *op cit*, 329.

- 28 Albritton, "Between Obesity and Hunger".
- 29 Ibid.
- 30 Duhaime-Ross "New US Food Guidelines"; also see Nestle, "Food Lobbies, the Food Pyramid"; Teicholz, "The Scientific Report Guiding".
- 31 Utting, *Business Responsibility for Sustainable*.
- 32 Foladori, "Can PPPs in Health".
- 33 Emtairah & Mont, "Gaining Legitimacy".
- 34 Rayner and Lang, *Ecological Public Health*.
- 35 Peabody, "Economic Reform and Health".
- 36 Torres, "Economic Transformations in Cuba"; Wilkinson, "A Perfect Impasse?"
- 37 Castro Ruz, "Discurso pronunciado por el general".
- 38 Leogrande, "Can Cuba's Miguel Díaz-Canel".
- 39 Batalla & Grzelczyk, "A Future, But at What Cost?"
- 40 Guerra, *Myth of José Martí*.
- 41 Domínguez López and Yaffe, "The Deep Historical Roots".
- 42 Wilson, *Everyday Moral Economies*, 37-66.
- 43 Ibid.
- 44 Note 40, 5.
- 45 Ibid., 76-83.
- 46 Altieri *et al.*, "The Development and Status"; Funes *et al.*, *Sustainable Agriculture and Resistance*; Rossett, "Cuba: A Successful Case"; Wright, *Sustainable Agriculture and Food Security*.
- 47 Note 40, 172-176.
- 48 Lage, "Socialism and the Knowledge Economy"; Ziegler, "Promotion and Protection of All"; Cardenas, *The Cuban Biotechnology Industry*; Gürcan, "Cuban Agriculture and Food Sovereignty", 136.
- 49 Note 40, 103-104.
- 50 Baden *et al.*, "A Tale of Two Pharmas".
- 51 Baden and Wilkinson, "Socially Responsible Enterprise in Cuba"; See Note 40.
- 52 Kapcia, *Cuba in Revolution*.
- 53 Bandura 1994 and Zaccaro *et al.* 1995.
- 54 Spiegel and Yassi .
- 55 Hickel, "[The Sustainable Development Index](#)".
- 56 Note 40, 81.
- 57 Reid-Henry, *The Cuban Cure*.
- 58 Rayner and Lang, *Ecological Public Health*, 20.
- 59 Wilkinson 2017.
- 60 Lage, note 47.
- 61 Shutt, "A Moral Economy?", 1533.
- 62 IPCC, "Global Warming of 1.5C".
- 63 Jackson, "The Post-Growth Challenge".